ABSTRACT

This invention discloses a proportional to absolute temperature (PTAT) type of temperature measurement to improve the accuracy of temperature measurements. Instead of measuring resistance variations across a distance of diode, a technique of temperature determination using frequency measurements is performed in this invention through a voltage control oscillator. The measurement circuits are more compatible with the use of a flexible PCA connection to the microdisplay to a board. The basic circuit of this invention achieved an improved resistance noise and provides additional operation modes with added benefits of more conveniently and flexibly determining an operation mode to overcome the measurement noises. Furthermore, measurement of frequency as carried out by this invention improves the measurement accuracy and reduces the likelihood of false temperature readings.